

Datasheet for #sbcw22368 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative bias and positive bias on the specific zones drawn below. To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.

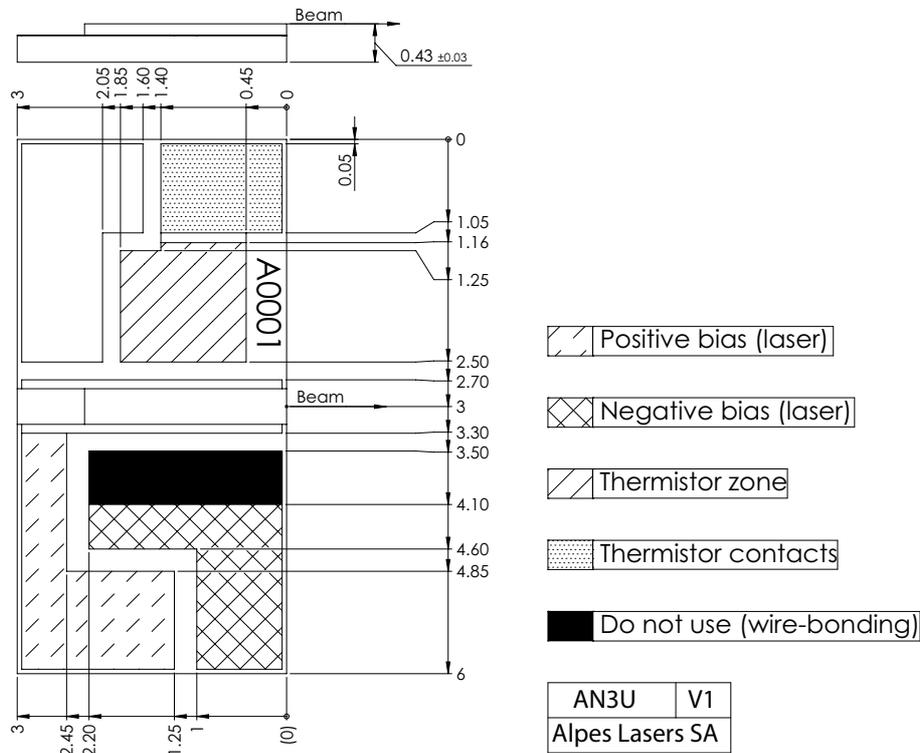


Figure 1: Mechanical and electrical interface for #sbcw22368 DN (please note that AlN submount numbering is A0NW1)

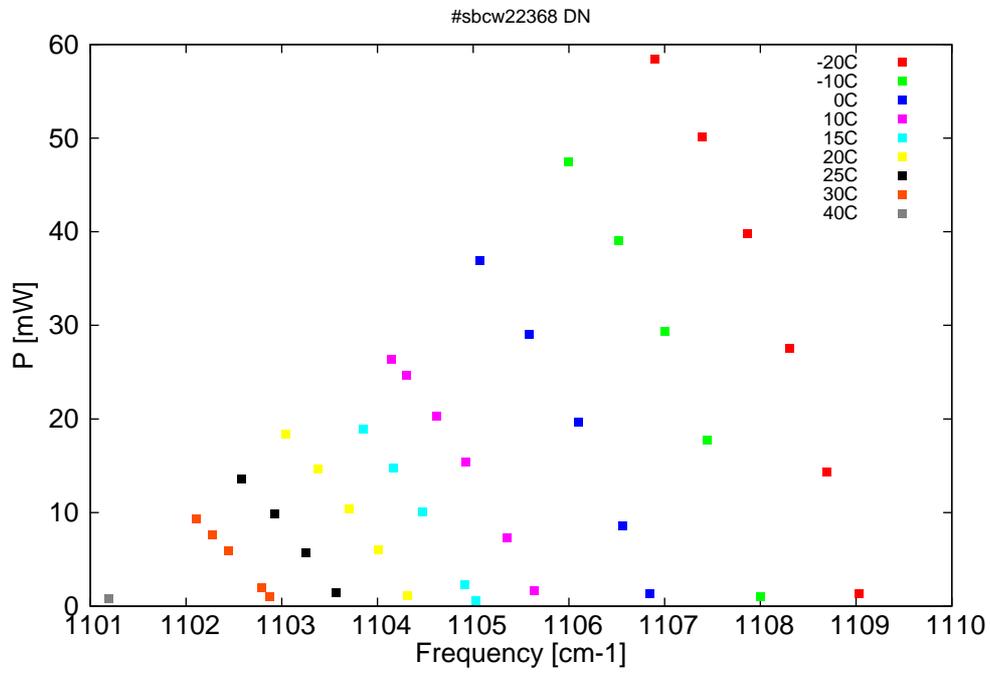


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

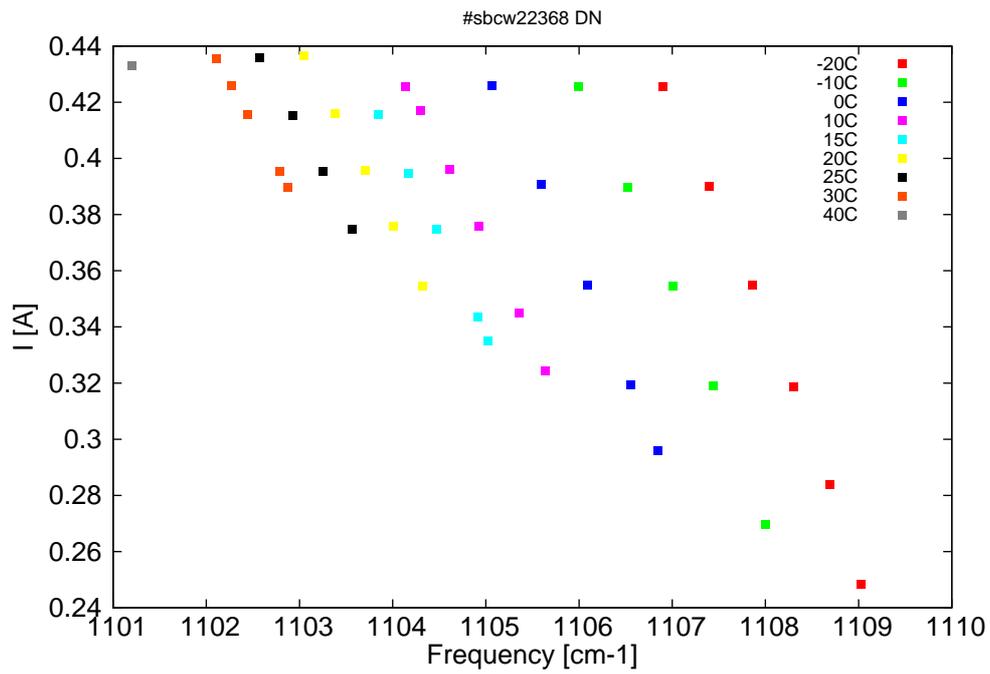


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9016.9	1109	1.3	-20	9.7	0.248
9019.6	1108.7	14.4	-20	10.06	0.284
9022.8	1108.3	27.6	-20	10.41	0.319
9026.4	1107.9	39.8	-20	10.78	0.355
9030.2	1107.4	50.2	-20	11.13	0.39
9034.2	1106.9	58.4	-20	11.47	0.425
9025.2	1108	1.1	-10	9.82	0.27
9029.8	1107.4	17.7	-10	10.32	0.319
9033.4	1107	29.4	-10	10.68	0.354
9037.4	1106.5	39.1	-10	11.03	0.39
9041.6	1106	47.4	-10	11.38	0.426
9034.7	1106.8	1.3	0	10	0.296
9037	1106.6	8.5	0	10.23	0.319
9040.8	1106.1	19.6	0	10.59	0.355
9044.9	1105.6	29	0	10.95	0.391
9049.2	1105.1	36.9	0	11.29	0.426
9044.6	1105.6	1.7	10	10.21	0.324
9046.9	1105.4	7.3	10	10.42	0.345
9050.4	1104.9	15.5	10	10.73	0.376
9052.9	1104.6	20.3	10	10.93	0.396
9055.5	1104.3	24.7	10	11.13	0.417
9056.8	1104.1	26.4	10	11.2	0.426
9049.6	1105	0.6	15	10.27	0.335
9050.5	1104.9	2.3	15	10.36	0.344
9054.1	1104.5	10	15	10.68	0.375
9056.6	1104.2	14.7	15	10.88	0.395
9059.2	1103.9	18.9	15	11.08	0.416
9055.4	1104.3	1.1	20	10.43	0.354
9057.9	1104	6	20	10.64	0.376
9060.4	1103.7	10.4	20	10.84	0.396
9063.1	1103.4	14.6	20	11.04	0.416
9065.8	1103	18.4	20	11.24	0.437
9061.5	1103.6	1.5	25	10.59	0.375
9064.1	1103.2	5.8	25	10.79	0.395
9066.7	1102.9	9.9	25	10.98	0.415
9069.7	1102.6	13.6	25	11.19	0.436
9067.2	1102.9	1	30	10.69	0.39
9067.9	1102.8	2	30	10.75	0.395
9070.8	1102.4	5.9	30	10.96	0.416
9072.1	1102.3	7.6	30	11.04	0.426
9073.5	1102.1	9.3	30	11.15	0.435
9081	1101.2	0.8	40	11.04	0.433

Table 1: Singlemode optical output power as function of operating parameters.

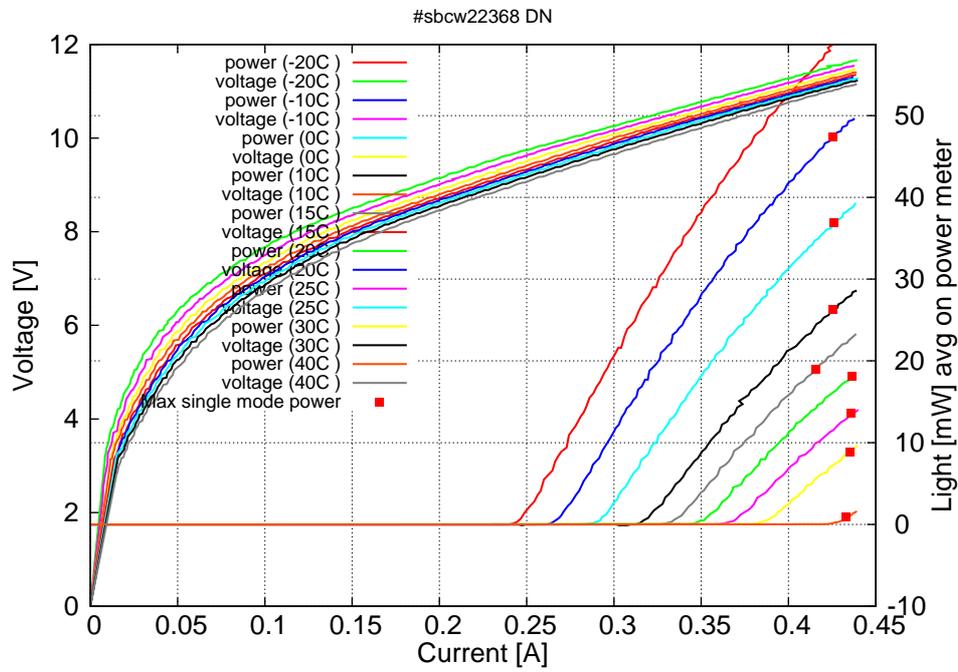


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.24A$ / $V_{th}=9.7V$ (2-wires measurements). Maximum operation current: 0.425A between -20C and 15C, 0.44A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

